United Nations

Report of the Committee on the Peaceful Uses of Outer Space

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Chapter I

Introduction

1. The Committee on the Peaceful Uses of Outer Space held its fifty-second session in Vienna from 3 to 12 June 2009. The officers of the Committee were as follows:

Chairman:	Ciro Arévalo Yepes (Colombia)
First Vice-Chairman:	Suvit Vibulsresth (Thailand)
Second Vice-Chairman/Rapporteur:	Filipe Duarte Santos (Portugal)

The unedited verbatim transcripts of the meetings of the Committee are contained in documents COPUOS/T.597-612.

A. Meetings of subsidiary bodies

2. The Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space had held its forty-sixth session in Vienna from 9 to 20 February 2009, under the chairmanship of Aboubekr Seddik Kedjar (Algeria). The report of the Subcommittee was before the Committee (A/AC.105/933).

3. The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space had held its forty-eighth session in Vienna from 23 March to 3 April 2009, under the chairmanship of Vladimír Kopal (Czech Republic). The report of the Subcommittee was before the Committee (A/AC.105/935). The unedited verbatim transcripts of the meetings of the Subcommittee are contained in documents COPUOS/Legal/T.783-802.

B. Adoption of the agenda

4. At its opening meeting, the Committee adopted the following agenda:

1. Opening of the session.
2. Adoption of the agenda.
3. Statement by the Chairman.
4. General exchange of views.
5. Ways and means of maintaining outer space for peaceful purposes.
6. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).
7. Report of the Scientific and Technical Subcommittee on its forty-sixth session.
8. Report of the Legal Subcommittee on its forty-eighth session.
9. Spin-off benefits of space technology: review of current status.

10. Space and society.

11. Space and water.

12. Space and climate change.

13. Use of space technology in the United Nations system.

14. International cooperation in promoting the use of space-derived geospatial data for sustainable development.

15. Other matters.

16. Report of the Committee to the General Assembly.

C. Membership

5. In accordance with General Assembly resolutions 1472 A (XIV), 1721 E (XVI), 3182 (XXVIII), 32/196 B, 35/16, 49/33, 56/51, 57/116, 59/116 and 62/217 and decision 45/315, the Committee on the Peaceful Uses of Outer Space was composed of the following 69 States: Albania, Algeria, Argentina, Australia, Austria, Belgium, Benin, Bolivia (Plurinational State of), Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chad, Chile, China, Colombia, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Kenya, Lebanon, Libyan Arab Jamahiriya, Malaysia, Mexico, Mongolia, Morocco, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Senegal, Sierra Leone, Slovakia, South Africa, Spain, Sudan, Sweden, Switzerland, Syrian Arab Republic, Thailand, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam.

D. Attendance

6. Representatives of the following 60 States members of the Committee attended the session: Algeria, Argentina, Austria, Belgium, Bolivia (Plurinational State of), Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Kenya, Libyan Arab Jamahiriya, Malaysia, Mexico, Mongolia, Morocco, Netherlands, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Sierra Leone, Slovakia, South Africa, Spain, Sudan, Sweden, Switzerland, Syrian Arab Republic, Thailand, Turkey, Ukraine, United Kingdom, United States, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam.

7. At its 597th, 598th and 602nd meetings, the Committee decided to invite, at their request, observers for Azerbaijan, Belarus, the Dominican Republic, El Salvador, Maldives, Norway, Panama, the former Yugoslav Republic of Macedonia, Tunisia and Yemen, as well as the Holy See, to attend its fifty-second session and to address it, as appropriate, on the understanding that it would be

without prejudice to further requests of that nature and that it would not involve any decision of the Committee concerning status.

8. At its 597th meeting, the Committee decided to invite, at its request, the observer for Palestine to attend its fifty-second session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that it would not involve any decision of the Committee concerning status.

9. Observers for the United Nations Institute for Disarmament Research, the United Nations Institute for Training and Research (UNITAR), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Telecommunication Union (ITU) and the International Atomic Energy Agency (IAEA) attended the session.

10. The session was attended by observers for the following intergovernmental organizations with permanent observer status with the Committee: the European Organisation for Astronomical Research in the Southern Hemisphere (ESO), the European Space Agency (ESA), the European Telecommunications Satellite Organization (EUTELSAT-IGO) and the Regional Centre for Remote Sensing of North African States (CRTEAN). The session was also attend by observers for the following non-governmental organizations: Association of Space Explorers (ASE), the European Space Policy Institute (ESPI), EURISY, the International Academy of Astronautics (IAA), the International Astronautical Federation (IAF), the International Institute of Space Law (IISL), the Planetary Society, the Prince Sultan bin Abdulaziz International Prize for Water, the Secure World Foundation (SWF) and the Space Generation Advisory Council (SGAC).

11. At its 597th and 598th meetings, the Committee decided to invite, at their request, the observers for the European Commission, the Asia-Pacific Space Cooperation Organization, the Group on Earth Observations (GEO) and the International Association for the Advancement of Space Safety (IAASS) to attend its fifty-second session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that it would not involve any decision of the Committee concerning status.

12. A list of representatives of States members of the Committee, States not members of the Committee, United Nations entities and other organizations attending the session is contained in A/AC.105/2009/INF/1 and Corr.1.

E. General statements

13. Statements were made by representatives of the following States members of the Committee during the general exchange of views: Algeria, Austria, Brazil, Canada, Chile, China, Colombia, Cuba, Ecuador, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Italy, Iraq, Japan, Libyan Arab Jamahiriya, Malaysia, Netherlands, Nigeria, Pakistan, Poland, Republic of Korea, Romania, Russian Federation, Saudi Arabia, South Africa, Sweden, Syrian Arab Republic, Thailand, Ukraine, United States, Venezuela (Bolivarian Republic of) and Viet Nam. The representative of the Plurinational State of Bolivia made a statement on behalf of the States Members of the United Nations that are members

of the Group of Latin American and Caribbean States. The representative of the Czech Republic made a statement on behalf of the States Members of the United Nations that are members of the European Union. The observer for Maldives made a statement. Statements were also made by the observers for ESA, ESPI, IAF, SGAC and SWF.

14. At the 597th meeting, on 3 June, the Chairman made a statement outlining the work of the Committee at its current session. The Chairman highlighted the major role played by the Committee in shaping international standards for space activities and promoting international cooperation at the global, regional and interregional levels. The Chairman stressed the importance of further strengthening the strategic role of the Committee. Clear objectives were needed to achieve long-term goals for ensuring that the benefits of space science and technology would be available to the whole of humanity. To adapt to emerging and future challenges to the global community, the United Nations system, in close coordination with its Member States, needed to find holistic solutions to current and emerging global problems. The Chairman presented a paper entitled "Towards a United Nations space policy" (A/AC.105/2009/CRP.12).

15. The Committee welcomed with appreciation the initiative of the Chairman to seek a holistic approach for enhancing coordination between Member States and the United Nations system in applying space science and technology to meet the challenges to development of all countries and noted that that initiative could serve as a basis for future discussions.

16. Some delegations expressed the view that the long-term sustainability of space activities was a matter of concern not only for spacefaring countries, regional space organizations and commercial satellite operators but also for the international community as a whole.

17. The view was expressed that the peaceful uses of outer space needed a stronger platform within the United Nations system and that a group composed of the members of the bureaux of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies (the "Group of 15") should be established as a mechanism to advise the Secretary-General on matters related to space and development.

18. The Committee noted that space-based information could play an important role in supporting the unique sustainable development challenges faced by small island developing States.

19. At the 601st meeting, the Director of the Office for Outer Space Affairs of the Secretariat made a statement in which she reviewed the work carried out by the Office during the past year. The Director also outlined the operational priorities of the Office.

20. The Committee welcomed with appreciation the address made by the astronauts Yang Liwei and Jing Haipeng on the success of China's manned space flights Shenzhou-5 and Shenzhou-7.

21. The Committee noted with appreciation the video address made by Jean-Jacques Dordain, Director General of ESA.

22. The Committee heard the following presentations:

(a) "Japanese space policy: the basic plan for space policy", by the representative of Japan;

(b) "International Astronautical Congress 2009", by the representative of the Republic of Korea;

(c) "International activities of the American Institute of Aeronautics and Astronautics", by the representative of the United States;

(d) "Report on the activities of the Space Policy Institute", by the representative of the United States.

23. The Committee noted with appreciation the preparations by the Government of the Republic of Korea for the 60th International Astronautical Congress, to be held in Daejeon, Republic of Korea, from 12 to 16 October 2009, with the theme "Space for sustainable development".

F. Adoption of the report of the Committee

24. After considering the various items before it, the Committee, at its 612th meeting, on 12 June, adopted its report to the General Assembly containing the recommendations and decisions set out below.

Chapter II

Recommendations and decisions

A. Ways and means of maintaining outer space for peaceful purposes

25. In accordance with paragraph 41 of General Assembly resolution 63/90, the Committee continued its consideration, as a matter of priority, of ways and means of maintaining outer space for peaceful purposes.

26. The representatives of Ecuador, the Republic of Korea, the United States and Venezuela (Bolivarian Republic of) made statements under the item. During the general exchange of views, statements were also made on the item by representatives of other member States.

27. The Committee heard the following presentations:

(a) "Third African Leadership Conference", by the representative of Algeria;

(b) "IAA third African Regional Conference in Abuja", by the representative of Nigeria.

28. The Committee noted with satisfaction the agreement of the General Assembly that, during its consideration of the matter, the Committee could continue to consider ways to promote regional and interregional cooperation based on experiences stemming from the Space Conferences of the Americas, the African Leadership Conferences on Space Science and Technology for Sustainable Development and the role that space technology could play in the implementation of the recommendations of the World Summit on Sustainable Development.[1]

29. The Committee agreed that, through its work in the scientific, technical and legal fields, the Committee had a fundamental role to play in ensuring that outer space was maintained for peaceful purposes.

30. The Committee noted with satisfaction the work done by the pro tempore secretariat of the Fifth Space Conference of the Americas, established by the Government of Ecuador, to carry out the plan of action of the Fifth Conference (A/AC.105/2009/CRP.14). In that regard, the Committee noted with appreciation the ongoing preparations for the Sixth Conference, and that the Government of Ecuador had organized a meeting with the pro tempore secretariat, the International Group of Experts of the Space Conferences of the Americas and the Office for Outer Space Affairs, held in the Galapagos Islands, Ecuador, on 28 and 29 August 2008, following a regional seminar on space law held in Quito on 26 and 27 August 2008.

31. The Committee welcomed with satisfaction the preparations for the Third African Leadership Conference on Space Science and Technology for Sustainable Development, to be held in Algiers from 30 November to 2 December 2009.

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[1] *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August–4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum).

32. The Committee also noted with satisfaction that the Asia-Pacific Space Cooperation Organization, with headquarters in Beijing, had formally started operating in December 2008.

33. The Committee noted with appreciation the holding of the fifteenth session of the Asia-Pacific Regional Space Agency Forum in Hanoi and Ha Long Bay, Viet Nam, in December 2008 in cooperation with the Sentinel Asia project.

34. The Committee noted the important role played by those conferences and other initiatives in promoting regional and international partnerships among States, such as the preparations for the 2010 International Air and Space Fair, to be held in Santiago in March 2010; and the third IAA African Regional Conference, to be held in Abuja from 24 to 26 November 2009.

35. The Committee emphasized that regional and interregional cooperation and coordination in the field of space activities were essential to strengthen the peaceful uses of outer space, to assist States in the development of their space capabilities and to contribute to the achievement of the Millennium Development Goals (A/56/326, annex).

36. Some delegations were of the view that the Committee played a notable role in advancing space cooperation and provided a unique forum for the exchange of information among States and that there were tangible opportunities to enhance international cooperation, in keeping with the Committee's mandate.

37. Some delegations were of the view that in order to further the objective of promoting peaceful uses of outer space, it was important to preserve the principle embodied in article I of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies[2] and that outer space should be used in a rational manner.

38. Some delegations were of the view that provisions of international space law had to be improved in order to effectively respond to challenges posed by a number of problems of contemporary space activities, such as the absence of a definition and delimitation of outer space, the use of nuclear power sources in outer space and the threat posed by space debris. Those delegations were of the view that the improvement of international space law would also ensure that outer space was used exclusively for peaceful purposes.

39. Some delegations expressed their support for the draft treaty on the prevention of the placement of weapons in outer space and the threat of or use of force against outer space objects, which had been presented by the delegations of China and the Russian Federation to the Conference on Disarmament in 2008.

40. Some delegations were of the view that in order to maintain the peaceful nature of space activities, it was essential for the Committee to enhance its cooperation and coordination with other bodies and mechanisms of the United Nations system, such as the General Assembly, in particular its First and Fourth Committees; ITU; the World Meteorological Organization (WMO); and the Conference on Disarmament.

[2] United Nations, *Treaty Series*, vol. 610, No. 8843.

41. The view was expressed that although some dialogue and communication on outer space matters had already been established among a number of bodies of the United Nations system, it was important to establish more formal links.

42. The view was expressed that the Committee had been created exclusively to promote international cooperation on the peaceful uses of outer space and that disarmament issues were more appropriately dealt with in other forums, such as the First Committee of the General Assembly and the Conference on Disarmament.

43. The view was expressed that peace in outer space could be maintained through the implementation of actions such as the promotion of greater transparency in space activities, encouraging information-sharing among members of the international community and compliance with provisions of international space law in carrying out space activities.

44. The view was expressed that space activities could contribute to the broad concept of security by maintaining the peaceful aspect of space technology development and fostering peaceful uses of outer space.

45. The Committee noted the project of the European Union to adopt a code of conduct for outer space activities. The draft text, which had been approved by the Council of the European Union in December 2008, included transparency and confidence-building measures and reflected a comprehensive approach to safety and security in outer space guided by the following principles: freedom of access to space for all for peaceful purposes, preservation of the security and integrity of space objects in orbit and due consideration for the legitimate defence interests of States. The Committee also noted that consultations with spacefaring countries were under way, with a view to reaching consensus on a text that would be acceptable to the greatest possible number of States. The Committee further noted that, following the conclusion of those consultations, an ad hoc conference would be organized for States to subscribe the code.

46. The Committee recommended that, at its fifty-third session, in 2010, it should continue its consideration, on a priority basis, of the item on ways and means of maintaining outer space for peaceful purposes.

B. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space

47. In its resolution 59/2, the General Assembly had agreed that the Committee should continue to consider the implementation of the recommendations of UNISPACE III until the Committee considered that concrete results had been achieved.

48. The representatives of Chile, China, Colombia, France, India, Iran (Islamic Republic of), Japan, Nigeria, Pakistan and the United States made statements under the item. Representatives of other member States also made statements relating to the item during the general exchange of views and during the discussion on the report of the Scientific and Technical Subcommittee on its forty-sixth session.

49. The Committee heard the following presentations:

(a) "Sustainable development in and through space: governance, financing and education issues", by the representative of the United States;

(b) "Space Generation at a glance – 10-year evaluation" and "Outcomes of the SGAC 10-year anniversary conference: UNISPACE III – how far have we come?" by the observer for SGAC.

50. The Committee noted with appreciation the panel discussion on the theme "Tenth anniversary of UNISPACE III", organized by the Secretariat on 3 June 2009. The panel was moderated by the Chairman of the Committee and included the following presentations: "The path towards UNISPACE III", by U. R. Rao (India), Chairman of the Preparatory Committee for UNISPACE III and President of UNISPACE III; "The unique organizational aspects of UNISPACE III", by S. Camacho, former chief of the Committee Services and Research Section of the Office for Outer Space Affairs, which had acted as the executive secretariat of UNISPACE III; and "UNISPACE III: 10 years on", by M. Othman, Director of the Office for Outer Space Affairs.

51. The Committee recalled that UNISPACE III, the last major United Nations conference of the twentieth century, had been a success from an organizational and substantive standpoint, despite the fact that the Conference had been held with severe time constraints and within existing resources.

52. The Committee noted the important contribution to UNISPACE III made by regional preparatory conferences and agreed that the programme of work of the Conference and the subsequent implementation of its recommendations were highly relevant to the needs of all countries.

53. The Committee noted that the establishment of action teams under the leadership of Member States had provided a unique mechanism and innovative strategy in implementing the recommendations of UNISPACE III.

54. The Committee recalled that the report of the Secretariat on organizational matters relating to UNISPACE III (A/C.4/54/9) provided a concrete example for other United Nations entities with respect to convening a conference on global issues while keeping the costs within existing resources.

55. The Committee endorsed the recommendations of the Scientific and Technical Subcommittee, submitted to the Subcommittee at its forty-sixth session by its Working Group of the Whole, which had been reconvened under the chairmanship of K. Radhakrishnan (India) to consider, inter alia, the implementation of the recommendations of UNISPACE III (A/AC.105/933, para. 42 and annex I).

56. The Committee noted with appreciation that additional recommendations, as set out in the Plan of Action on the implementation of the recommendations of UNISPACE III (see A/59/174, sect. VI.B), had been implemented and that further progress had been made in implementing the remaining ones.

57. The Committee noted with appreciation that Member States continued to contribute to the implementation of the recommendations of UNISPACE III through national and regional activities and by supporting and participating in the programmes established in response to those recommendations.

58. The Committee also noted with appreciation that Member States were implementing the recommendations of UNISPACE III by, among other things, actively supporting and participating in the work related to the 10-Year Implementation Plan of the Global Earth Observation System of Systems (GEOSS).

59. The view was expressed that while a significant amount of work had been done, the implementation of the recommendations of UNISPACE III should not be considered completed until the vast majority of people, especially those in developing countries, benefited from space technology and its applications.

60. The view was expressed that a comprehensive assessment by the Committee of the implementation of the recommendations of UNISPACE III and UNISPACE III + 5 would be timely.

61. The view was expressed that the Committee should give consideration to the possibility of holding a fourth United Nations conference on the exploration and peaceful uses of outer space.

62. In accordance with the decision taken at its fifty-first session, the Committee reviewed and finalized its contribution to the work of the Commission on Sustainable Development for the thematic cluster for the period 2010-2011, on the basis of the draft text contained in the note by the Secretariat (A/AC.105/2009/CRP.7). The Committee requested the Secretariat to make the note by the Secretariat available to the Commission in the six official languages of the United Nations.

63. The Committee agreed that the Director of the Division for Sustainable Development of the Department of Economic and Social Affairs of the Secretariat should continue to be invited to participate in the sessions of the Committee to advise on how it could best contribute to the work of the Commission on Sustainable Development and agreed that the Director of the Office for Outer Space Affairs should attend the sessions of the Commission with a view to raising awareness and promoting the benefits of space science and technology, in particular in the areas being addressed by the Commission.

64. The view was expressed that the Chairman of the Commission on Sustainable Development should be invited to participate in the sessions of the Committee and that the Chairman of the Committee should attend the sessions of the Commission.

65. The Committee agreed that the implementation and follow-up of recommendations of UNISPACE III relating to the use of space-based systems for areas such as agriculture and land use, water resource management, disaster management and overall resource management would greatly help Member States to support their sustainable development needs and achieve the Millennium Development Goals.

66. The Committee agreed that, as proposed by the representative of Chile, "Space technology and pandemics" should be the theme of the panel discussion to be organized by the Office for Outer Space Affairs when the Fourth Committee considered the agenda item "International cooperation in the peaceful uses of outer space", during the sixty-fourth session of the General Assembly.

67. The Committee noted with appreciation the publication of the report on the events of World Space Week 2008 (ST/SPACE/44), prepared by the World Space Week Association in cooperation with the Office for Outer Space Affairs.

68. The Committee welcomed reports by member States on their activities relating to the celebration of World Space Week 2008.

C. Report of the Scientific and Technical Subcommittee on its forty-sixth session

69. The Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on its forty-sixth session (A/AC.105/933), which contained the results of its deliberations on the agenda items considered by the Subcommittee in accordance with General Assembly resolution 63/90.

70. The Committee expressed its appreciation to the Chairman of the Scientific and Technical Subcommittee, Aboubekr Seddik Kedjar (Algeria), for his able leadership and contributions during the forty-sixth session of the Subcommittee.

71. The representatives of Brazil, Canada, Chile, Colombia, the Czech Republic, Ecuador, France, Germany, Greece, India, Italy, Japan, Malaysia, Mexico, Nigeria, Pakistan, the Russian Federation, Switzerland, Turkey, the United States and Venezuela (Bolivarian Republic of) made statements under this item. During the general exchange of views, statements relating to this item were also made by representatives of other member States. The observer for Azerbaijan also made a statement.

72. The Committee heard the following presentations:

(a) "Status report on the operation of the Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP)", by the Director of the Centre;

(b) "Status report on the operation of the African Regional Centre for Space Science and Technology Education—in French Language (CRASTE-LF)", by the Director of the Centre;

(c) "Status report on the operation of the African Regional Centre for Space Science and Technology Education—in English Language (ARCSSTE-E)", by the Director of the Centre;

(d) "Status report on the operation of the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean (CRECTEALC)", by the Secretary-General of the Centre;

(e) "Promoting disaster reduction through multinational cooperation in the Asian region: Asian Disaster Reduction Centre (ADRC) activities", by the representative of Japan;

(f) "Chandrayaan-1: mission and scientific achievements", by the representative of India;

(g) "Small satellite constellations for environment and disaster monitoring and forecasting", by the representative of China;

(h) "Solar mission Coronas-Photon: scientific objectives and first observational results", by the representative of the Russian Federation;

(i) "Application of satellite remote sensing for monitoring of crops and environment", by the representative of Pakistan;

(j) "International Charter on Space and Major Disasters", by the representative of Argentina;

(k) "Iridium-Cosmos satellite collision", by the representative of the United States;

(l) "Consequences of the collision of Iridium 33 and Cosmos-2251", by the representative of the United States;

(m) "Update on COSPAS-SARSAT programme activities", by the representative of the United States;

(n) "Uses of outer space for scientific aims in Turkey", by the representative of Turkey;

(o) "From quarks to the universe: the Big Bang in the lab", by the representative of Germany;

(p) "Report on the workshop on the efficient use of the spectrum/orbit resources", by the observer for ITU;

(q) "ESA space situational awareness NEO programme", by the observer for ESA;

(r) "Asteroid threats: a call for global response", by the observer for ASE.

1. United Nations Programme on Space Applications

(a) Activities of the United Nations Programme on Space Applications

73. The Committee took note of the discussion of the Subcommittee under the item on the United Nations Programme on Space Applications, as reflected in the report of the Subcommittee (A/AC.105/933, paras. 19-40 and annex I, paras. 3-4).

74. The Committee endorsed the decisions and recommendations of the Subcommittee and its Working Group of the Whole, which was convened under the chairmanship of K. Radhakrishnan (India) to consider this item (A/AC.105/933, paras. 22 and 32).

75. The Committee took note of the activities of the Programme carried out in 2008, as set out in the report of the Scientific and Technical Subcommittee (A/AC.105/933, paras. 28-31) and in the report of the Expert on Space Applications (A/AC.105/925, annex I).

76. The Committee expressed its appreciation to the Office for Outer Space Affairs for the manner in which the activities of the Programme had been implemented with the limited funds available. The Committee also expressed its appreciation to the Governments and intergovernmental and non-governmental organizations that had sponsored those activities.

77. The Committee noted with satisfaction that further progress was being made in the implementation of the activities of the Programme for 2009, as set out in the report of the Subcommittee (A/AC.105/933, para. 32).

78. The Committee noted with satisfaction that the Programme was helping developing countries and countries with economies in transition to participate in and benefit from the space activities being carried out to implement the recommendations of UNISPACE III.

79. The Committee noted with concern the limited financial resources available to implement the Programme and appealed to States and organizations to continue supporting the Programme through voluntary contributions.

80. The Committee noted that implementation of the United Nations Programme on Space Applications was among the main priorities of the Office for Outer Space Affairs.

(i) Conferences, training courses and workshops of the United Nations Programme on Space Applications

81. The Committee endorsed the workshops, training courses, symposiums and expert meetings planned for the remaining part of 2009, and expressed its appreciation to Austria, Azerbaijan, Iran (Islamic Republic of), Mexico, Morocco, Peru, the Republic of Korea and the United States, as well as to ESA and IAF, for co-sponsoring, hosting and supporting those activities (A/AC.105/925, annex II).

82. The Committee endorsed the programme of workshops, training courses, symposiums and expert meetings related to water resources management, socio-economic benefits of space activities, small satellite technology for sustainable development, space weather, global navigation satellite systems, search and rescue and space law, planned to be held in 2010 for the benefit of developing countries.

83. The Committee noted with appreciation that the host countries of the regional centres for space science and technology education, affiliated to the United Nations, were providing the centres with significant financial and in-kind support.

(ii) Long-term fellowships for in-depth training

84. The Committee expressed its appreciation to the Politecnico di Torino, the Istituto Superiore Mario Boella, the Istituto Elettrotecnico Nazionale Galileo Ferraris, the National Commission on Space Activities (CONAE) of Argentina and the Mario Gulich Institute for Advanced Space Studies for the fellowships that they provided for postgraduate studies relating to global navigation satellite systems (GNSS) and landscape epidemiology. The Committee also welcomed the cooperation between CONAE and several Chilean universities, including the University of La Serena.

85. The Committee noted that it was important to increase opportunities for in-depth education in all areas of space science, technology and applications and space law through long-term fellowships and urged Member States to make such opportunities available at their relevant institutions.

(iii) Technical advisory services

86. The Committee noted with appreciation the technical advisory services provided under the United Nations Programme on Space Applications in support of activities and projects promoting regional cooperation in space applications, as referred to in the report of the Expert on Space Applications (A/AC.105/925, paras. 35-42).

(b) International Space Information Service

87. The Committee noted with satisfaction that the publication entitled *Highlights in Space 2008* had been issued on CD-ROM.

88. The Committee noted with satisfaction that the Secretariat had continued to enhance the International Space Information Service and the website of the Office for Outer Space Affairs (www.unoosa.org).

(c) Regional and interregional cooperation

89. The Committee noted with satisfaction that the United Nations Programme on Space Applications continued to emphasize cooperation with Member States at the regional and global levels aimed at supporting the regional centres for space science and technology education, affiliated to the United Nations. The highlights of the activities of the regional centres supported under the Programme in 2008 and the activities planned for 2009 and 2010 were included in the report of the Expert on Space Applications (A/AC.105/925, annex III).

90. The Committee commended the reports made by the Directors and Secretary-General of the regional centres at its present session, on the current and planned activities and training programmes at each of the centres. The reports of the Directors and Secretary-General are contained in A/AC.105/2009/CRP.13.

91. The Committee agreed that the regional centres should continue to report to the Committee on their activities on an annual basis.

92. The Committee noted with appreciation that the publication entitled "Capacity-building in Space Science and Technology: Regional Centres for Space Science and Technology Education Affiliated to the United Nations" (ST/SPACE/41) provided comprehensive information on the development and achievements of the regional centres since their inauguration.

(d) International Satellite System for Search and Rescue

93. The Committee recalled that, at its forty-fourth session, it had agreed that a report on the activities of the International Satellite System for Search and Rescue (COSPAS-SARSAT) should be considered annually by the Committee as part of its consideration of the United Nations Programme on Space Applications and that member States should report on their activities regarding COSPAS-SARSAT.

94. The Committee noted with satisfaction that COSPAS-SARSAT currently had 38 member States and two participating organizations, which offered five polar-orbiting and five geostationary satellites that provided worldwide coverage for emergency beacons. The Committee further noted that since 1982,

COSPAS-SARSAT had helped to save approximately 25,000 lives. In 2007, it helped to save 2,386 lives in 562 different search and rescue events worldwide.

95. The Committee took note of the phasing out of the beacons operating at 121.5 MHz, replaced by beacons operating at 406 MHz, which was completed by 1 February 2009.

96. The Committee noted with satisfaction that outreach efforts were being undertaken to expand the use of the International Beacon Registration Database for COSPAS-SARSAT. This capability enabled beacon owners who lived in countries that did not register beacons to have a place to do so and enabled nations that maintained a beacon registration service not available online to manage their beacons within the International Database.

97. The Committee further noted that the use of satellites in medium-Earth orbit continued to be explored, with a view to improving international satellite-aided search and rescue operations.

98. The Committee welcomed the continued efforts for enhancements to the system by developing and testing the next generation of COSPAS-SARSAT, known as the Medium-Earth Orbit Search and Rescue (MEOSAR) system.

99. The Committee also noted with satisfaction that the United States, jointly with the Office for Outer Space Affairs, had organized and hosted a regional training course on satellite-aided search and rescue, held from 19 to 23 January 2009 in Miami Beach, Florida. A total of 22 nations participated in the training, the aim of which was to promote awareness of the COSPAS-SARSAT system and to establish a formal interface with user countries for better understanding and coordination of the system's operations.

2. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment

100. The Committee took note of the discussion of the Subcommittee under this agenda item, as reflected in the report of the Subcommittee (A/AC.105/933, paras. 54-63).

101. In the course of the discussion, delegations reviewed national and cooperative programmes on remote sensing, giving examples of national programmes and bilateral, regional and international cooperation.

102. The Committee stressed the important role of Earth observation satellite data in supporting activities in a number of key areas of sustainable development. It emphasized, in that connection, the importance of providing non-discriminatory access to remote sensing data and to derived information at a reasonable cost or free of charge and in a timely manner, as well as the importance of building capacity in the use of remote sensing technology, in particular to meet the needs of developing countries.

103. The Committee noted with satisfaction the presentation made by the observer for the secretariat of GEO at the forty-sixth session of its Scientific and Technical Subcommittee on the progress made in the implementation of the GEOSS 10-Year Implementation Plan.

104. The Committee encouraged further international cooperation among member States in the use of remote sensing satellites, in particular by sharing experiences and technologies through bilateral, regional and international collaborative projects.

3. Space debris

105. The Committee took note of the discussion of the Subcommittee under the agenda item on space debris, as reflected in the report of the Subcommittee (A/AC.105/933, paras. 64-82).

106. The Committee endorsed the decisions and recommendations of the Subcommittee on this item (A/AC.105/933, paras. 70, 74 and 75).

107. The Committee noted with appreciation that some States were implementing space debris mitigation measures consistent with the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space and/or the Inter-Agency Space Debris Coordination Committee (IADC) Space Debris Mitigation Guidelines and that other States had developed their own space debris mitigation standards based on those guidelines. The Committee also noted that other States were using the IADC Guidelines and the European Code of Conduct for Space Debris Mitigation as reference points in their regulatory frameworks established for national space activities.

108. The Committee noted that some member States were continuing to carry out, at both the national and international levels, research on the problem of space debris.

109. Some delegations were of the view that the increasing density of space debris, in particular in low-Earth orbits, threatened access to and the use of outer space in both the short term and the long term.

110. Some delegations expressed the view that the collision involving an active commercial Iridium 33 satellite and an inactive Cosmos-2251 satellite that had occurred in low-Earth orbit on 10 February 2009 demonstrated the increasing risk that space debris posed to space activities.

111. Some delegations expressed the view that the States most responsible for the creation of space debris and the States having the capability to take action on space debris mitigation should inform the Committee on their actions to reduce the creation of space debris, in accordance with General Assembly resolution 62/217.

112. The Committee took note of the proposal made by the delegations of Germany and Italy for the establishment, under the auspices of the United Nations, of an international platform of data and information on objects in outer space for the promotion of the safe and sustainable development of the peaceful uses of outer space, whose data would be supplied on an exclusively voluntary basis and which would be freely accessible to Member States (A/AC.105/2009/CRP.19).

113. In that connection, some delegations were of the view that it was important to make available information on the existing population of objects in outer space in order, inter alia, to avoid collisions in outer space between operational spacecraft, as well as between space debris and operational spacecraft, and to protect people from hazards associated with the re-entry of space debris. Concrete measures were required to make existing information and data on objects in outer space available for the promotion of free access to, and safe and sustainable use of, outer space.

114. The view was expressed that a thorough assessment should be carried out of the resources that would be required for the establishment of such a platform.

115. The view was expressed that the public data currently available, which would be a primary source for the proposed platform, would not be sufficient for analysing possible collisions of spacecraft with space debris. That delegation also pointed out the need to consider the financial implications and the liability that could be incurred by the United Nations should it become the sponsor of the database of space objects.

116. The Committee agreed to invite States members of IADC to prompt that body to advise the Scientific and Technical Subcommittee on the proposal made by the delegations of Germany and Italy, taking into account the views expressed at the present session of the Committee.

4. Space-system-based disaster management support

117. The Committee took note of the discussion of the Subcommittee under the agenda item on space-system-based disaster management support, as reflected in the report of the Subcommittee (A/AC.105/933, paras. 83-95 and annex I, paras. 11-14).

118. The Committee endorsed the decisions and recommendations of the Subcommittee and its Working Group of the Whole, which was convened, inter alia, to consider this item (A/AC.105/933, para. 84 and annex I, para. 13).

119. The Committee noted with satisfaction the progress made as reflected in the report on the activities carried out in 2008 in the framework of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (A/AC.105/929).

120. The Committee endorsed the workplan of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) for the biennium 2010-2011 (A/AC.105/937).

121. The Committee noted with appreciation the cash and in-kind contributions made by the Governments of Austria, China, Croatia, the Czech Republic, Germany, Indonesia, the Republic of Korea and Spain to support the activities of UN-SPIDER in 2008 and 2009. The Committee further noted that the UN-SPIDER programme would require additional voluntary contributions to carry out the activities planned for 2010, as well as the provision of senior experts, as non-reimbursable loans, and associate experts.

122. The Committee noted with satisfaction that the Office for Outer Space Affairs had signed cooperation agreements for the establishment of UN-SPIDER regional support offices with Iran (Islamic Republic of), Nigeria and Romania, as well as the Asian Disaster Reduction Centre, and that a cooperation agreement would be signed with the Government of Algeria during the Third African Leadership Conference, to be held in 2009. The regional support offices would serve as centres of expertise in the use of space technology in disaster management in accordance with paragraph 11 of General Assembly resolution 61/110.

123. The Committee noted with appreciation that the Governments of Pakistan, the Philippines, South Africa and Ukraine had each made an offer to host a UN-SPIDER regional support office.

124. The Committee noted with satisfaction the increase in the availability of space-based information to support disaster management and emergency response activities, including the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of National or Technological Disasters, whose resources were being made available to an increasing number of States, as well as Sentinel Asia, which, with the beginning of its Step 2 phase, would expand the opportunities made available through that initiative.

125. The Committee noted the offer from the Government of Turkey to provide, as a non-reimbursable loan, a senior expert to support the UN-SPIDER programme, to be based in the UN-SPIDER office in Bonn, Germany.

5. Recent developments in global navigation satellite systems

126. The Committee took note of the discussion of the Subcommittee under the agenda item on recent developments in global navigation satellite systems, as reflected in the report of the Subcommittee (A/AC.105/933, paras. 96-118).

127. The Committee agreed that, as requested by the General Assembly in paragraph 16 of its resolution 62/217, the Chairman of the International Committee on Global Navigation Satellite Systems (ICG) should be invited, under this item, at the forty-seventh session of the Scientific and Technical Subcommittee, to report on the work of ICG.

128. The Committee noted with appreciation that ICG continued to make significant progress towards achieving compatibility and interoperability among global and regional space-based positioning, navigation and timing systems and in promoting the use of GNSS and their integration into national infrastructure, particularly in developing countries.

129. The Committee noted with appreciation the activities conducted in the framework of the workplan of ICG in 2008 focusing on the application of GNSS in various areas to support sustainable development, as reflected in document A/AC.105/922.

130. The Committee noted with appreciation that the third meeting of ICG and its Providers' Forum had been held in Pasadena, California, United States, from 8 to 12 December 2008 (A/AC.105/928). The Committee noted that the Providers' Forum had adopted its terms of reference and workplan.

131. The Committee noted that the fourth meeting of ICG would be held in Saint Petersburg, Russian Federation, from 14 to 18 September 2009 and that the fifth meeting, to be held in 2010, would be hosted by Italy in cooperation with the European Commission.

132. The Committee noted with appreciation that the regional centres for space science and technology education, affiliated to the United Nations, would serve as ICG information centres.

133. The Committee agreed that the Office for Outer Space Affairs should continue to serve as the executive secretariat of ICG and its Providers' Forum, including carrying out the activities planned for 2010 under the workplan and maintaining the ICG information portal (www.icgsecretariat.org).

6. Use of nuclear power sources in outer space

134. The Committee took note of the discussion of the Subcommittee under the agenda item on the use of nuclear power sources in outer space, as reflected in the report of the Subcommittee (A/AC.105/933, paras. 119-135).

135. The Committee endorsed the decisions and recommendations of the Subcommittee and the Working Group on the Use of Nuclear Power Sources in Outer Space, reconvened under the chairmanship of Sam A. Harbison (United Kingdom) (A/AC.105/933, paras. 130 and 135 and annex II).

136. The Committee welcomed the adoption by the Scientific and Technical Subcommittee, at its forty-sixth session, of the Safety Framework for Nuclear Power Sources Applications in Outer Space and the subsequent agreement of the IAEA Commission on Safety Standards at its twenty-fifth meeting, held in Vienna from 22 to 24 April 2009.

137. The Committee noted with appreciation that the draft Safety Framework had been prepared and submitted for approval one year ahead of its original schedule.

138. The Committee endorsed the Safety Framework for Nuclear Power Sources Applications in Outer Space, as contained in document A/AC.105/934.

139. The Committee expressed its gratitude to the Joint Expert Group of the Scientific and Technical Subcommittee and IAEA, established to develop an international technically based framework of goals and recommendations for the safety of planned and currently foreseeable applications of nuclear power sources (NPS) in outer space, to the Subcommittee's Working Group on the Use of Nuclear Power Sources in Outer Space and to IAEA for the constructive and efficient cooperation in the preparation of the Safety Framework. In that connection, the Committee requested the Secretariat to submit, on its behalf, a letter of appreciation to IAEA, reflecting the fact that the Safety Framework was an example of successful inter-agency cooperation within the United Nations system.

140. The Committee noted with appreciation that the Safety Framework would also be published as a report of IAEA and that an electronic version of the text of the Safety Framework, in the six official languages of the United Nations, would also be made available by the IAEA secretariat on a CD-ROM.

141. The Committee noted that the Working Group on the Use of Nuclear Power Sources in Outer Space of the Subcommittee held an informal meeting in Vienna from 2 to 4 June 2009 to discuss possible follow-up actions with respect to the Safety Framework.

142. Some delegations expressed the view that it was exclusively States, irrespective of their level of social, economic, scientific or technical development, that had an obligation to engage in the regulatory process associated with the use of NPS in outer space and that the matter concerned all humanity. Those delegations were of the view that Governments bore international responsibility for national activities involving the use of NPS in outer space conducted by governmental and non-governmental organizations and that such activities must be beneficial and not detrimental to humanity.

143. Some delegations were of the view that the Safety Framework represented a significant advance in the development of safe NPS applications and that

implementation of the Safety Framework by Member States and international intergovernmental organizations would provide assurance to the global public that NPS applications would be launched and used in a safe manner.

144. The view was expressed that the Safety Framework was not intended to interpret, supplement or replace the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, adopted by the General Assembly in its resolution 47/68.

145. The view was expressed that the use of NPS in outer space should be as limited as possible and that comprehensive and transparent information on measures taken to ensure safety should be provided to other States. That delegation was of the view that no justification existed for the use of NPS in terrestrial orbits, for which other sources of energy were available, were much safer and had been proved to be efficient.

7. Near-Earth objects

146. The Committee took note of the discussion of the Subcommittee under the agenda item on near-Earth objects, as reflected in the report of the Subcommittee (A/AC.105/933, paras. 136-148 and annex III).

147. The Committee endorsed the recommendations of the Subcommittee and its Working Group on Near-Earth Objects, which was convened under the chairmanship of Richard Crowther (United Kingdom) (A/AC.105/933, paras. 146 and 148 and annex III, paras. 8 and 9).

148. The Committee noted that the Action Team on Near-Earth Objects had convened on the margins of the fifty-second session of the Committee to further review and develop draft recommendations on the international response to the threat of Near-Earth object (NEO) impacts, for consideration by the Working Group of the Subcommittee at the forty-seventh session of the Subcommittee, in 2010.

149. The Committee noted that as part of its intersessional work, the Action Team was planning to hold a series of workshops dealing with policy, legal and operational aspects of the international response to the threat of NEO impacts. The workshops would be organized jointly with universities and space-related institutions, and their conclusions would be forwarded to the Action Team.

150. The view was expressed that the international response to the threat of NEO impacts required a multidimensional and multidisciplinary approach and decision-making process, involving technical, legal, humanitarian and institutional aspects. That delegation considered that the international community needed to address the technical and legal implications, and the related institutional implications, of the response to the threat of NEO impacts.

8. International Heliophysical Year 2007

151. The Committee took note of the discussion of the Subcommittee under the agenda item on the International Heliophysical Year 2007, as reflected in the report of the Subcommittee (A/AC.105/933, paras. 157-168).

152. The Committee noted with appreciation the achievements of the International Heliophysical Year 2007, as reflected in the publication entitled "IHY 2007 Final Report" (ST/SPACE/43 and Corr.1).

153. The Committee expressed its appreciation to the secretariat of the International Heliophysical Year and the Office for Outer Space Affairs for the numerous activities carried out from 2005 to 2009. The Committee agreed that those activities had successfully raised awareness of basic space science and its role in the sustainable development of the Earth and space environment.

154. The Committee noted that the final workshop on basic space science and the International Heliophysical Year 2007, co-sponsored by ESA, Japan Aerospace Exploration Agency (JAXA) and the National Aeronautics and Space Administration (NASA) of the United States, would be hosted by the Republic of Korea, in Daejeon, from 21 to 25 September 2009.

155. The Committee noted the importance of continuing to build upon the success of the International Heliophysical Year 2007, in particular by deepening the understanding of the function of the Sun and its effects on the Earth's magnetosphere, environment and climate, and noted with satisfaction the agreement reached by the Scientific and Technical Subcommittee at its forty-sixth session to consider, beginning at its forty-seventh session, a new agenda item entitled "International Space Weather Initiative" under a three-year workplan with specific focus on the effects of space weather on the Earth and its impact, inter alia, on communications and transport.

9. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries

156. The Committee took note of the discussion of the Subcommittee under the agenda item on the examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, as reflected in the report of the Subcommittee (A/AC.105/933, paras. 149-156).

157. Some delegations reiterated the view that the geostationary orbit was a limited natural resource and that it was at risk of becoming saturated. Those delegations were of the view that the exploitation of the geostationary orbit should be rationalized and made available to all States, irrespective of their current technical capabilities, thus giving them the opportunity to have access to the geostationary orbit under equitable conditions, taking into account in particular the needs of developing countries and the geographical position of certain countries, with the participation and cooperation of ITU. Those delegations therefore considered that the item on the geostationary orbit should remain on the agenda of the Subcommittee for further discussion, with the purpose of continuing to analyse its scientific and technical characteristics.

158. Some delegations expressed the concern that commercial exploitation of the geostationary orbit, in particular the overexploitation of spectrum resources, under the protection of a number of Governments, was severely threatening equitable access by all States to those spectrum resources.

159. The view was expressed that gaps in the regulatory framework for the geostationary orbit made it difficult for developing countries to gain equitable access to spectrum resources within the geostationary orbit.

10. Draft provisional agenda for the forty-seventh session of the Scientific and Technical Subcommittee

160. The Committee took note of the discussion of the Subcommittee on the agenda item on the draft provisional agenda for the forty-seventh session of the Scientific and Technical Subcommittee, as reflected in the report of the Subcommittee (A/AC.105/933, paras. 169-171 and annex I, sect. V).

161. The Committee agreed that the Scientific and Technical Subcommittee should include, starting from its forty-seventh session, a new agenda item entitled "Long-term sustainability of outer space activities" under the multi-year workplan as presented below:

2010	General exchange of views on present and future challenges facing outer space activities, as well as potential measures that could enhance the long-term sustainability of outer space activities, with a view to establishing a working group open to all member States of the Committee.
2011	Preparation of a report on the long-term sustainability of outer space activities and examination of measures that could enhance their long-term sustainability; preparation of a draft set of best practices guidelines.
2012/2013	Continuation of consideration and finalization of the report and of the set of best practices guidelines for presentation to and review by the Committee.

162. The Committee also agreed that it would consider whether the set of best practices guidelines should require review by the Legal Subcommittee before endorsement by the Committee. Once the set of best practices guidelines has been endorsed, the Committee may also consider whether it should be annexed to a specific General Assembly resolution or should be endorsed by the General Assembly as part of its annual resolution on international cooperation in the peaceful uses of outer space.

163. The Committee welcomed the agreement of the Subcommittee that the topic for the symposium to strengthen the partnership with industry (the industry symposium), to be organized in 2010 by the Office for Outer Space Affairs, should be "Nurturing the development of space technology" and that the symposium should be held during the first week of the forty-seventh session of the Subcommittee (A/AC.105/933, annex I, para. 19).

164. On the basis of the deliberations of the Scientific and Technical Subcommittee at its forty-sixth session, the Committee agreed on the following draft provisional agenda for the forty-seventh session of the Subcommittee:

1. General exchange of views and introduction of reports submitted on national activities.
2. United Nations Programme on Space Applications.

3. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).

4. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment.

5. Space debris.

6. Space-system-based disaster management support.

7. Recent developments in global navigation satellite systems.

8. Items to be considered under workplans:

(a) Use of nuclear power sources in outer space;

(Work for 2010 as reflected in the multi-year workplan in paragraph 7 of annex II to the report of the Scientific and Technical Subcommittee on its forty-fourth session (A/AC.105/890))

(b) Near-Earth objects;

(Work for 2010 as reflected in the multi-year workplan in paragraph 11 of annex III to the report of the Scientific and Technical Subcommittee on its forty-fifth session (A/AC.105/911))

(c) International Space Weather Initiative;

(Work for 2010 as reflected in the multi-year workplan in paragraph 16 of annex I to the report of the Scientific and Technical Subcommittee on its forty-sixth session (A/AC.105/933))

(d) Long-term sustainability of outer space activities;

(Work for 2010 as reflected in para. 161 above)

9. Single issue/item for discussion: Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union.

10. Draft provisional agenda for the forty-eighth session of the Scientific and Technical Subcommittee, including identification of subjects to be dealt with as single issues/items for discussion or under multi-year workplans.

165. The Committee endorsed the recommendation that the Working Group on the Use of Nuclear Power Sources in Outer Space and the Working Group on Near-Earth Objects should reconvene in accordance with their multi-year workplans, and agreed that the Subcommittee should reconvene the Working Group of the Whole at its forty-seventh session.

D. Report of the Legal Subcommittee on its forty-eighth session

166. The Committee took note with appreciation of the report of the Legal Subcommittee on its forty-eighth session (A/AC.105/935), which contained the results of its deliberations on the items considered by the Subcommittee in accordance with General Assembly resolution 63/90.

167. The Committee expressed its appreciation to Vladimír Kopal (Czech Republic) for his able leadership and contributions during the forty-eighth session of the Subcommittee.

168. The representatives of Algeria, Austria, Brazil, Canada, China, Colombia, the Czech Republic, Indonesia, Iran (Islamic Republic of), Italy, Japan, Nigeria, Pakistan, the Russian Federation, Saudi Arabia, the Syrian Arab Republic, the United States and Venezuela (Bolivarian Republic of) made statements under the item. During the general exchange of views, statements relating to this item were also made by representatives of other member States.

169. The Committee paid tribute to Eileen Galloway of the United States, who had passed away at the age of 102 in 2009, for her long-term contribution and dedication to work on and the development of space law.

170. The view was expressed that the Committee should strengthen interaction between the Legal Subcommittee and the Scientific and Technical Subcommittee.

1. Status and application of the five United Nations treaties on outer space

171. The Committee took note of the discussion of the Subcommittee under its agenda item on the status and application of the five United Nations treaties on outer space, as reflected in the report of the Subcommittee (A/AC.105/935, paras. 30-40).

172. The Committee endorsed the decisions and recommendations of the Subcommittee and its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, which had been reconvened under the chairmanship of Vassilis Cassapoglou (Greece) (A/AC.105/935, paras. 38 and 39 and annex I, paras. 7, 17 and 18). The Committee noted that the Subcommittee had agreed that, at its forty-ninth session, it would review the need to extend the mandate of the Working Group beyond that period.

173. Some delegations were of the view that there had been positive developments in the revitalization of the agendas and methods of work of the Committee and its Subcommittees and recognized the important efforts to widen and strengthen the present legal basis for space activities by increasing the number of States and international intergovernmental organizations adhering to the United Nations treaties on outer space.

174. Some delegations were of the view that the Subcommittee should encourage States that had acceded to the core United Nations treaties on outer space to examine their legislative frameworks to ensure compliance.

175. Some delegations were of the view that, considering the constant growth in the conduct of space activities, a new, comprehensive convention on space law was needed to further strengthen the international legal regime governing those

activities. Those delegations were of the view that a single, comprehensive convention could regulate all aspects of outer space activities. Those delegations welcomed the continuation, at the forty-ninth session of the Legal Subcommittee, of the discussion on the current state of international space law and possible options for its future development.

176. The view was expressed that the negotiation of a new, comprehensive space law instrument might undermine the existing space law regime.

177. Some delegations were of the view that the joint statement on the benefits of adherence to the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies by States parties to the Agreement (A/AC.105/C.2/L.272, annex) provided a useful analysis of the benefits offered by participation in the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies.[3]

2. Information on the activities of international intergovernmental and non-governmental organizations relating to space law

178. The Committee took note of the discussion of the Subcommittee under the item on information on the activities of international intergovernmental and non-governmental organizations relating to space law, as reflected in the report of the Subcommittee (A/AC.105/935, paras. 41-52).

179. The Committee endorsed the recommendations of the Subcommittee on this item (A/AC.105/935, paras. 45 and 51).

180. The Committee noted that the activities of international intergovernmental and non-governmental organizations relating to space law were important and had contributed significantly to the development of space law. The Committee also noted that intergovernmental organizations had an important role to play in strengthening the legal framework applicable to space activities and should therefore consider taking steps to encourage their members to adhere to the outer space treaties.

3. Matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union

181. The Committee took note of the discussion of the Subcommittee under the agenda item on matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union, as reflected in the report of the Subcommittee (A/AC.105/935, paras. 53-85).

182. The Committee endorsed the recommendations of the Subcommittee and its Working Group on the Definition and Delimitation of Outer Space, reconvened under the chairmanship of José Monserrat Filho (Brazil) (A/AC.105/935, paras. 71 and 84 and annex II, para.13).

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[3] Ibid., vol. 1363, No. 23002.

183. Some delegations were of the view that scientific and technological progress, the commercialization of outer space, emerging legal questions and the increasing use of outer space in general had made it necessary for the Subcommittee to consider the question of the definition and delimitation of outer space.

184. The view was expressed that reaching agreement on the definition and delimitation of outer space, at the very least achieving a minimum consensus through a more realistic approach, would create certainty with respect to the sovereignty of States over their airspace and would enable the effective application of the principles of the freedom of use of outer space and of the non-appropriation of outer space. That delegation was of the view that progress in the definition and delimitation of outer space could be achieved through cooperation with the International Civil Aviation Organization (ICAO).

185. The view was expressed that current and foreseeable civil aviation operations would not exceed altitudes of 100-130 km, where there was a potential danger of collision with numerous spacecraft. In that connection, that delegation proposed that the boundary between airspace and outer space be established in that range.

186. The view was expressed that the proposal made by the Union of Soviet Socialist Republics during the eighteenth session of the Subcommittee, in 1979, and contained in document A/AC.105/C.2/L.121, could serve as a solid basis for the consideration by the Subcommittee of the delimitation of outer space.

187. Some delegations expressed the view that the topic for the symposium to be organized by the International Institute of Space Law and the European Centre for Space Law in the framework of the forty-ninth session of the Subcommittee, in 2010, should relate to the issue of the definition and delimitation of outer space.

188. Some delegations expressed the view that the geostationary orbit was an integral part of outer space and that, therefore, its use should be governed by the provisions of the United Nations treaties on outer space and the relevant ITU regulations.

189. The view was expressed that the Committee could play a role in the work of ITU by contributing to the study to be carried out by Working Party 4A of the ITU Radiocommunication Sector in 2011 and to the World Radiocommunication Conference to be held in the second half of 2011.

190. The view was expressed that the Committee was not competent to participate in the substantive technical conferences and other meetings of ITU, in accordance with the Convention of the International Telecommunication Union[4] and the Agreement between the United Nations and the International Telecommunication Union that entered into force on 1 January 1949.[5] The view was expressed that ITU was the only specialized agency of the United Nations system to deal with telecommunications.

[4] Ibid., vol. 1825, No. 31251.

[5] Ibid., vol. 30, No. 175.

4. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space

191. The Committee took note of the discussion of the Subcommittee under the agenda item on the review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, as reflected in the report of the Subcommittee (A/AC.105/935, paras. 86-100).

192. The Committee endorsed the recommendations of the Subcommittee on this item (A/AC.105/935, para. 99).

193. The Committee noted the work being undertaken by the Scientific and Technical Subcommittee under the item entitled "Use of nuclear power sources in outer space" and that the Safety Framework for Nuclear Power Source Applications in Outer Space had been adopted by the Scientific and Technical Subcommittee at its forty-sixth session.

194. Some delegations were of the view that the Principles Relevant to the Use of Nuclear Power Sources in Outer Space remained valid and significant and that their revision was not warranted.

195. The view was expressed that the Safety Framework should be considered by the Legal Subcommittee in order to initiate the development of legally binding norms to strengthen the safety of space activities.

5. Examination and review of the developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment

196. The Committee took note of the discussion of the Subcommittee under the item on the examination and review of the developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment, as reflected in the report of the Subcommittee (A/AC.105/935, paras. 101-113).

197. The Committee endorsed the recommendations of the Subcommittee on this item (A/AC.105/935, para. 112).

198. The Committee noted that the steering committee of the International Institute for the Unification of Private Law (Unidroit) had held its second meeting in Paris from 13 to 15 May 2009 and that a third session of the Unidroit committee of governmental experts would be convened in Rome from 7 to 11 December 2009 with a view to resuming negotiations of the draft space assets protocol.

6. Capacity-building in space law

199. The Committee took note of the discussion of the Subcommittee under the item on capacity-building in space law, as reflected in the report of the Subcommittee (A/AC.105/935, paras. 114-147).

200. The Committee endorsed the recommendations of the Subcommittee on the agenda item (A/AC.105/935, paras. 122-123 and 144-146).

201. The Committee agreed that research, training and education in space law were of paramount importance to national, regional, and international efforts to further

develop space activities and to increase knowledge of the legal framework within which space activities were carried out.

202. The Committee agreed that the workshops on space law organized by the Office for Outer Space Affairs were making a meaningful contribution to building capacity in space law.

203. The Committee noted with appreciation that the Islamic Republic of Iran would act as host of the next United Nations workshop on space law, to be held in Tehran in November 2009.

204. The Committee noted with appreciation the progress made in developing a curriculum on space law (see A/AC.105/C.2/2009/CRP.5) and expressed its appreciation to the educators and the representatives of the regional centres who were participating in this important initiative.

205. The view was expressed that adequate support, through the provision of expertise as well as material and financial resources, would be necessary to enable the regional centres for space science and technology education to effectively implement courses on space law.

206. The Committee agreed that the Office for Outer Space Affairs should continue to update the directory of education opportunities in space law.

207. The Committee agreed that the work being conducted by the Legal Subcommittee under its agenda item "General exchange of information on national legislation relevant to the peaceful exploration and use of outer space" had an important role in building capacity and supporting developing countries in elaborating their own national space laws.

208. The Committee noted the information provided by the United Nations University in response to the letter by the Chairman of the Committee (A/AC.105/2009/CRP.10).

209. The view was expressed that the Office for Outer Space Affairs should continue to support the efforts of developing countries to build capacity in space law, notwithstanding the constraints of limited resources.

210. The view was expressed that improving education in space law was a prerequisite for furthering space activities and ensuring that they were carried out in conformity with international space law.

7. General exchange of information on national mechanisms relating to space debris mitigation measures

211. The Committee took note of the discussion of the Subcommittee under the item on national mechanisms relating to space debris mitigation measures, as reflected in the report of the Subcommittee (A/AC.105/935, paras. 148-162).

212. The Committee endorsed the recommendations of the Subcommittee on this item (A/AC.105/935, paras. 160-161).

213. The Subcommittee noted that some States had strengthened their national mechanisms governing space debris mitigation through the nomination of governmental supervisory authorities, the involvement of academia and industry and the development of new legislative norms, instructions, standards and frameworks.

214. The view was expressed that although the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space and the IADC Space Debris Mitigation Guidelines were of a scientific and technical nature and were not legally binding, they were significant for the consideration of legal aspects of the undesirable effects of space activities, which would become warranted sooner or later.

215. The view was expressed that it was important to ensure the safety, security and predictability of space activities by codifying best practices and technical norms concerning space operations, which would be aimed at limiting or minimizing harmful interference in outer space.

216. Some delegations were of the view that it was important to strengthen international space law by updating its norms or introducing new ones in order to effectively address, among other things, challenging issues of space debris and the use of nuclear power sources in outer space.

8. General exchange of information on national legislation relevant to the peaceful exploration and use of outer space

217. The Committee took note of the discussion of the Subcommittee under the item on national legislation relevant to the peaceful exploration and use of outer space, as reflected in the report of the Subcommittee (A/AC.105/935, paras. 163-182).

218. The Committee endorsed the recommendations of the Subcommittee and its Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space, established at its forty-eighth session to consider this item, with Irmgard Marboe (Austria) as Chairman (A/AC.105/935, paras. 171 and 181 and annex III, paras. 17-19).

219. The Committee noted with satisfaction that the exchange of information by the Subcommittee under this agenda item provided States with a comprehensive overview of the current status of national space laws and regulations. The Committee further noted that the information was considered valuable by delegations, as it allowed States, in particular developing States, to gain an understanding of existing national regulatory frameworks, and that it could assist States in their efforts to establish their own national regulatory frameworks in accordance with their specific needs and level of development.

220. The view was expressed that the sharing of information on national legislation could help States to identify common principles and procedures that could facilitate the consensus on the direction of the development of international space law, while promoting both the acceptance and the implementation of the principles and provisions enshrined in the United Nations treaties on outer space.

221. The Committee noted with appreciation the increasing number of space-related international cooperation programmes and projects. In that connection, the Committee noted the importance of the development of space legislation by States, as that legislation played a significant role in regulating and promoting such cooperation activities.

222. The Committee noted that the Working Group of the Subcommittee on the item also discussed reasons for not enacting space legislation (A/AC.105/935, annex III, para. 7).

9. Draft provisional agenda for the forty-ninth session of the Legal Subcommittee

223. The Committee took note of the discussion of the Subcommittee under the agenda item on the draft provisional agenda for the forty-ninth session of the Legal Subcommittee, as reflected in the report of the Subcommittee (A/AC.105/935, paras. 183-195).

224. On the basis of the deliberations of the Legal Subcommittee at its forty-eighth session, the Committee agreed on the following draft provisional agenda for the forty-ninth session of the Subcommittee, in 2010:

Regular items

1. Opening of the session, election of the Chairman and adoption of the agenda.
2. Statement by the Chairman.
3. General exchange of views.
4. Status and application of the five United Nations treaties on outer space.
5. Information on the activities of international intergovernmental and non-governmental organizations relating to space law.
6. Matters relating to:
   (a) The definition and delimitation of outer space;
   (b) The character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union.

Single issues/items for discussion

7. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.
8. Examination and review of the developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment.
9. Capacity-building in space law.
10. General exchange of information on national mechanisms relating to space debris mitigation measures.

Items considered under workplans

11. General exchange of information on national legislation relevant to the peaceful exploration and use of outer space.

    2010: Continued examination, by a working group, of responses received and initiation of drafting of the working group's report, including conclusions.

New items

12. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fiftieth session.

225. The Committee agreed that the Legal Subcommittee should, at its forty-ninth session, reconvene the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, the Working Group on the Definition and Delimitation of Outer Space and the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space.

226. The Committee agreed that the Subcommittee should review, at its forty-ninth session, the need to extend the mandate of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space beyond that session of the Subcommittee.

227. The Committee agreed that the International Institute of Space Law and the European Centre for Space Law should be invited to hold a symposium on space law at the forty-ninth session of the Subcommittee (A/AC.105/935, para. 189).

228. Some delegations reiterated their support for the proposed new agenda item relating to the regulation of the dissemination of high-resolution Earth observation satellite images through the World Wide Web. Those delegations were of the view that the irresponsible dissemination of space-based images, in particular through the World Wide Web, seriously undermined the privacy of citizens worldwide, as well as the sovereignty and national security of States.

229. The view was expressed that a new item entitled "Review of existing norms of international law applicable to space debris", proposed by the delegations of the Czech Republic and Greece, should be included on the agenda of the Legal Subcommittee.

E. Spin-off benefits of space technology: review of current status

230. The Committee considered the agenda item entitled "Spin-off benefits of space technology: review of current status", in accordance with paragraph 47 of General Assembly resolution 63/90.

231. The representatives of Japan and the United States made statements under the item.

232. The Committee heard a presentation entitled "Science of advanced materials in space with spin-off applications on Earth", by the representative of Turkey.

233. The following publications were made available to the Committee: Spinoff: 50 Years of NASA-Derived Technologies (1958-2008); NASA Technologies Enhance Our Lives; and Spin-off Cases of Space Technology in Japan (2009).

234. The Committee agreed that spin-offs of space technology should be promoted because they advanced economies through the production of innovative technologies, thereby contributing to the improvement of the quality of life.

235. The Committee agreed that spin-offs of space technology constituted a powerful engine for technological innovation and growth in both the industrial and

service sectors and could be beneficially applied to achieve social and humanitarian objectives, the development of national communications infrastructure and other projects aimed at achieving the goal of sustainable development.

236. The Committee noted that Governments of Member States had successfully involved the private sector and academia in various projects in the area of spin-offs of space technology.

237. The view was expressed that spin-offs of space technology could effectively help developing countries to meet challenges in the areas of health and medicine, public safety, industrial productivity and transport.

238. The Committee agreed to continue its consideration of the item at its fifty-third session, in 2010.

F. Space and society

239. The Committee considered the agenda item entitled "Space and society", in accordance with paragraph 48 of General Assembly resolution 63/90. The Committee focused its discussions on the theme "Space and education", in accordance with the workplan adopted by the Committee at its forty-sixth session, in 2003.

240. The representatives of Belgium, Brazil, Canada, Germany, Hungary, India, Japan, Nigeria, South Africa, the Syrian Arab Republic, Ukraine and the United States made statements under the item. Representatives of other member States also made statements relating to this item during the general exchange of views. Statements were also made by the observers for EURISY, UNESCO and UNIDIR.

241. The Committee heard the following presentations:

(a) "Building peace in young minds through space education: contributions of the JAXA Space Education Centre to human development", by the representative of Japan;

(b) "Polish students' space activities", by the representative of Poland;

(c) "Astronomy, the Great Canary Telescope and dark skies", by the representative of Spain;

(d) "Four-dimensional digital universe viewer Mitaka", by the representative of Japan.

242. The Committee agreed that sharing scientific and technical knowledge and achievements in the field of space activities would have a positive impact on future generations.

243. The Committee noted the important role of space education for inspiring students to pursue careers in science, technology, engineering and mathematics, for strengthening national capabilities in the fields of science and industry and for enhancing educational opportunities using distance-learning technologies such as tele-education and e-learning.

244. The Committee noted that a number of national tele-education initiatives were providing educators and students at all levels, including those in remote areas, with

high-quality education incorporating the latest teaching resources, vocational and teacher training and adult education.

245. The Committee noted that there were a number of national and international educational initiatives, activities and scientific missions aimed at using content, materials and applications unique to space activities for training students and teachers and for educating the general public on matters relating to outer space.

246. The Committee noted the educational opportunities being provided by a number of national universities, including hands-on training opportunities for university and graduate students in space science and engineering.

247. The Committee noted with satisfaction that, at the global level, a large number of outreach activities and programmes for children, young people and the general public were being established by national space and educational organizations and international organizations to promote awareness of the benefits of space science and technology and to encourage children to consider careers in the fields of mathematics and science.

248. The Committee noted that space-based data and services such as remote sensing and telecommunications were improving the lives of people throughout the world, including in remote and rural areas. The Committee also noted the important applications of space technology in many fields, such as distance education, health and medicine, weather forecasting, fisheries, disaster management, natural resource management, finance and banking.

249. The Committee noted that World Space Week, observed from 4 to 10 October each year pursuant to General Assembly resolution 54/68, contributed to the development of education and provided an important opportunity to sensitize the young people and the general public to the benefits of space science and technology.

250. The Committee noted the activities carried out at the regional level for capacity-building through education and training in space science and technology applications for sustainable development.

251. The Committee noted the programmes being implemented in the context of the United Nations Decade of Education for Sustainable Development (2005-2014) aimed at enhancing space subjects and disciplines in schools and universities, in particular in developing countries, and raising awareness among the general public of the benefits of space science and technology for social, economic and cultural development.

252. The Committee noted that the exchange of information and experiences on a variety of initiatives relating to space education in a broader context, such as the exchange in the Committee and its Subcommittees, was extremely useful and should continue. In this connection, the Committee agreed that it was important to identify specific new priority areas where additional efforts could have a greater impact on enhancing space awareness, not only among young people but also among a broader audience.

253. The Committee noted the role played by the International Space Station in education and in reaching out to education communities worldwide.

254. The Committee recalled General Assembly resolution 55/2, in which the Assembly adopted the United Nations Millennium Declaration, and noted that

illiteracy and a lack of adequate education continued to constitute major problems for developing countries.

255. Some delegations were of the view that in many developing countries the field of outer space was perceived as an elite sector detached from society and daily life. Such a perception would present a challenge to the advancement of space awareness and advocacy programmes to ensure public acceptance and appreciation of the broad range of societal benefits derived from space science and technology.

256. The view was expressed that States should be encouraged to improve the dissemination of space-related educational materials in order to increase general awareness of the importance of the use of space science and technology for attaining sustainable development.

257. The Committee noted that the General Assembly, in its resolution 62/200, had declared 2009 International Year of Astronomy and that a number of States used the Year to highlight the importance of the use of space science and technology while strengthening international cooperation in space education. A number of successful initiatives were reported, such as dedicated national websites, software programmes, special issues of scientific magazines, television broadcasts, stamps, poster contests and several coordinated initiatives among partners from government, academia and civil society.

258. The Committee agreed that, in view of the importance of the theme "Space and education", it would continue to consider the special theme at its fifty-third session, in 2010.

G. Space and water

259. The Committee considered the agenda item entitled "Space and water", in accordance with paragraph 49 of General Assembly resolution 63/90.

260. The representatives of Argentina, Austria, China, Germany, India, Japan and Saudi Arabia made statements under the item. Representatives of other member States also made statements relating to this item during the general exchange of views.

261. The Committee was given a technical video presentation by the observer for the Prince Sultan bin Abdulaziz International Prize for Water.

262. In the course of the discussions, delegations reviewed national and cooperative water-related activities, giving examples of national programmes and bilateral, regional and international cooperation.

263. The Committee noted the broad spectrum of water-related issues, ranging from too little water, reducing populations and consequently food production, to too much water, causing floods and destruction. Space technology and its applications had an expanding potential to obtain information useful for scientific research on water-related issues, for the support of sound water management practices and for policy- and decision-making.

264. The Committee noted the large number of space-borne platforms used to addressed water-related issues, including those at the planning and theoretical

stages. Data gathered by such platforms had great potential for expanding the use of applications of space technology to address water-related issues on Earth. The Committee further noted that space technology could be used in combination with non-space technologies to contribute to monitoring and mitigating the effects of flood, drought and earthquake disasters and to improving the timeliness and accuracy of forecasts.

265. The Committee noted that following the success of the United Nations/UNESCO/Saudi Arabia International Conference on the Use of Space Technology for Water Management, held in Riyadh from 12 to 16 April 2008, the second international conference would be held in Argentina in April 2010. The Committee noted with appreciation that the Prince Sultan bin Abdulaziz International Prize for Water had committed $30,000 for the holding of a conference on a biennial basis.

266. The Committee agreed to continue its consideration of the item at its fifty-third session, in 2010.

H. Space and climate change

267. The Committee considered a new agenda item entitled "Space and climate change", in accordance with paragraph 51 of General Assembly resolution 63/90.

268. The representatives of Canada, Colombia, Germany, India, Italy, Japan, Malaysia, Nigeria, Pakistan, Saudi Arabia, South Africa, the Syrian Arab Republic and the United States made statements under the item.

269. The Committee heard the following presentations:

(a) "GEOSS for climate: activities and achievements", by the observer for the secretariat of GEO;

(b) "DLR's Earth observation activities for risk and vulnerability assessment", by the representative of Germany;

(c) "Overview of IBUKI, the Greenhouse Gases Observing Satellite (GOSAT)", by the representative of Japan;

(d) "Space technology for climate change studies: the Indian perspective", by the representative of India;

(e) "Space technology to support the sustainable development of Colombia", by the representative of Colombia;

(f) "Space and climate in Indonesia: status and challenges", by the representative of Indonesia.

270. The Committee took note of the contributions from WMO and the secretariat of the Global Climate Observing System (A/AC.105/2009/CRP.5) and the Office for Outer Space Affairs (A/AC.105/2009/CRP.6) on climate change-related activities conducted by United Nations entities.

271. The Committee noted that the adverse effects of climate change constituted a threat to communities worldwide and were manifested through a variety of processes – such as increasing global average temperature, sea-level rise and the fragmentation and melting of the polar caps.

272. The Committee also noted that, given the global nature of climate change, global observations were required to monitor the phenomenon more precisely. In that context, the Committee agreed that space-based observations complemented by ground-based observations were well suited to monitoring the different manifestations of climate change and the factors contributing to it.

273. The Committee further noted that space-based observations could be used in support of mitigation and adaptation measures related to climate change.

274. The Committee took note of efforts conducted in various countries regarding the deployment of satellites carrying a variety of instruments to monitor different processes related to climate change and to measure some of the essential climate variables.

275. The Committee also took note of international efforts conducted under the auspices of the United Nations System (UNESCO, the United Nations Framework Convention on Climate Change and WMO), and other international initiatives such as the Committee on Earth Observation Satellites, GEO, the Global Monitoring for Environment and Security and the Intergovernmental Panel on Climate Change, which were also targeting climate change.

276. Some delegations expressed the view that developing countries, which contributed the least to climate change, suffered the most its adverse effects and did not have the resources to cope with its impact and take the appropriate adaptation measures. In that context, those delegations were of the view that the Committee should play a more proactive role in advocating the need to allocate resources to support developing countries.

277. The view was expressed that Africa, which produced the least greenhouse emissions, was the continent that would be most affected by the adverse effects of climate change, owing to a variety of socio-economic factors.

278. The view was expressed that the Office should play an active role in providing advisory and advocacy support and should contribute to linking the work of Member States.

I. Use of space technology in the United Nations system

279. The Committee considered a new agenda item entitled "Use of space technology in the United Nations system", in accordance with paragraph 51 of General Assembly resolution 63/90.

280. The representatives of Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador and Mexico made statements under the item. Representatives of other member States also made statements relating to this item during the general exchange of views. A statement was also made by the observer for UNESCO.

281. The Committee noted that the twenty-ninth session of the Inter-Agency Meeting on Outer Space Activities had been held in Vienna from 4 to 6 March 2009. The Committee had before it the report of the Inter-Agency Meeting on its twenty-ninth session (A/AC.105/939) and the report of the Secretary-General on the coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2009-2010 (A/AC.105/940).

282. The Committee also noted that the Inter-Agency Meeting had endorsed a report on the use of space technology for sustainable development in Africa (A/AC.105/2009/CRP.4). The report had been prepared by the Office for Outer Space Affairs in cooperation with the Economic Commission for Africa and in consultation with other United Nations entities and would be made available at the Third African Leadership Conference on Space Science and Technology for Sustainable Development, to be held in Algiers from 30 November to 2 December 2009. The report would also be made available to the Commission on Sustainable Development for its work under the thematic cluster for the period 2010-2011.

283. At the 606th meeting of the Committee, the Chairman of the Inter-Agency Meeting on Outer Space Activities, Francesco Pisano of the UNITAR Operational Satellite Applications Programme, made a statement on the work carried out by the Inter-Agency Meeting at its twenty-ninth session.

284. The Committee noted that the Inter-Agency Meeting had identified the following key issues for coordination:

(a) Strengthening further the Inter-Agency Meeting as the central mechanism of the United Nations for coordination of space-related activities;

(b) Reinforcing the contributions made by United Nations entities to the implementation of the United Nations Spatial Data Infrastructure developed by the United Nations Geographic Information Working Group;

(c) Enhancing the use of space-based assets in support of disaster management;

(d) Reinforcing the contributions made by United Nations entities to GEOSS and making optimal use of the benefits of GEOSS to strengthen the capacity of the United Nations.

285. The Committee noted that United Nations entities continued to actively contribute to the protection of the Earth environment and to the management of natural resources through the operation of global observing systems that relied on space-based data and that the activities of the United Nations in the fields of human security and welfare, humanitarian assistance and disaster management increasingly benefited from the use of space technology and its applications in operational environments. The Committee also noted that several United Nations entities conducted a range of programmes supporting capacity-building, training and education in the area of space-related activities.

286. The Committee noted various cooperation activities involving Member States and United Nations entities aimed at promoting capacity-building and the use of space technology and its applications.

287. The Committee noted that the Inter-Agency Meeting, following its twenty-ninth session, had, on 6 March 2009, held its sixth open informal session for member States and observers of the Committee, on the theme "Space-related activities of United Nations entities in Africa".

288. The Committee also noted with satisfaction that the Secretariat continued to maintain a website on the coordination of outer space activities within the United Nations system (www.uncosa.unvienna.org). The presentations made at the session of the Inter-Agency Meeting and the subsequent open informal session, as well as

other information on the current space-related activities of United Nations entities, are available on that website.

289. The Committee noted that the thirtieth session of the Inter-Agency Meeting would be hosted by ITU in Geneva from 10 to 12 March 2010. The open informal session, open to all members and permanent observers of the Committee, would be held on the afternoon of 12 March, on the theme "Space technology for emergency communications".

290. The Committee noted that the initiative of the Chairman reflected in the paper entitled "Towards a United Nations Space Policy" (A/AC.105/2009/CRP.12) was timely and could contribute to further promoting and strengthening the use of space technology and its applications in the United Nations system. The Committee noted that the Chairman would further develop that initiative for the consideration of the Committee at its fifty-third session and that the Office for Outer Space Affairs would assist the Chairman in that process.

J. International cooperation in promoting the use of space-derived geospatial data for sustainable development

291. The Committee considered the agenda item entitled "International cooperation in promoting the use of space-derived geospatial data for sustainable development", in accordance with paragraph 50 of General Assembly resolution 63/90.

292. The representatives of Belgium, Brazil, Canada, China, Colombia, Hungary, India, Mexico, Nigeria, South Africa, the Syrian Arab Republic and the United States made statements under the item. Other member States made statements related to this item during the general exchange of views. A statement was also made by a representative of the Office for Outer Space Affairs, on behalf of the United Nations Geographic Information Working Group.

293. The Committee heard the following technical presentations under the item:

(a) "Operational use of space-derived geospatial data: the key role of GEOSS", by the observer for the secretariat of GEO;

(b) "COSMO-SkyMed: potentialities for monitoring and management of the natural environment", by the representative of Italy.

294. The Committee noted the importance of remote sensing applications and spatial data infrastructures for decisions in the area of socio-economic and environmental management, which relied heavily on the availability of accurate data on natural resources and other geospatial data. Poor-quality data collection, inappropriate organizational and management practices, including the lack of adequate infrastructure and skilled human resources, contributed to poor decision-making, which could have undesirable consequences such as food insecurity, air and water pollution and environmental degradation.

295. The Committee noted that a number of organizations at the regional and global levels, such as CEOS (through its Working Group on Information Systems and Services), the European Umbrella Organisation for Geographic Information, GEO and the Global Spatial Data Infrastructure Association, contributed to capacity-

building and to the coordination and promotion of activities related to the use of space-derived geospatial data.

296. The Committee noted the activities being carried out by the United Nations Geographic Information Working Group, currently co-chaired by the Office for Outer Space Affairs and the Economic Commission for Africa, which was addressing common geospatial issues in the United Nations system and working towards implementation of the United Nations Spatial Data Infrastructure. The Committee also noted that national coordination offices established in some Member States continued to cooperate with the United Nations Geographic Information Working Group and that the tenth plenary meeting of the Working Group would be held in Bonn, Germany, from 19 to 21 October 2009.

297. The view was expressed that easy access to space-derived geospatial data and the development of the required information and communications technology infrastructure were essential for making optimal use of geospatial data for sustainable development. However, the development of national spatial data infrastructure was often neglected in developing countries owing to many other, competing needs and the lack of sufficient resources. To address that issue, United Nations entities and other development partners should make the development of a spatial data infrastructure by countries a condition for supporting project implementation, or else collaborate in building national spatial data infrastructures.

298. The view was expressed that although considerable progress was being made in the worldwide development of GEOSS, special efforts were still required to encourage greater participation, especially that of developing countries, in GEOSS. That delegation was of the view that developing countries could derive considerable benefits from using space-derived geospatial data.

299. The view was expressed that the concept of data democracy played an important role in promoting the use of space-derived geospatial data for sustainable development. Data democracy included unhindered access to Earth observation information, open-source software and open systems such as freely available image-processing software tools and systems, appropriate dissemination models taking into account the reality of bandwidth availability in developing countries, locally initiated cross-border collaborative projects and intensive capacity-building and training programmes.

300. The Committee noted that in response to a request made at its fifty-first session, the Secretariat had prepared a summary of the discussions of the Committee on this agenda item at its fiftieth and fifty-first sessions, in 2007 and 2008, for consideration at its present session (A/AC.105/2009/CRP.3). The summary included information on activities undertaken by entities of the United Nations system that were directly related to the use of space-derived geospatial information for sustainable development.

301. The Committee also noted that the delegation of Brazil had submitted, for consideration by the Committee, a set of draft recommendations on ways and means of fostering international cooperation with a view to building up national infrastructure for the use of space-derived geospatial data (A/AC.105/2009/CRP.21).

302. The Committee agreed that the item "International cooperation in promoting the use of space-derived geospatial data for sustainable development" should be

included on the agenda of the Committee at its fifty-third session, in 2010, to allow the Committee to finalize its report containing recommendations on ways and means of fostering international cooperation with a view to building up national infrastructure for the use of space-derived geospatial data.

303. The Committee also agreed that the delegation of Brazil would hold informal intersessional consultations with all interested members of the Committee to reach consensus on its proposal for a set of draft recommendations. The Committee agreed that, on the basis of those draft recommendations, the information contained in A/AC.105/2009/CRP.3 and the discussion at the present session of the Committee, the Secretariat would prepare a draft report, in the form of a conference room paper, to be submitted to the Committee, at its fifty-third session, in 2010, for its consideration and finalization.

K. Other matters

304. The Committee considered the agenda item entitled "Other matters", in accordance with paragraph 52 of General Assembly resolution 63/90.

305. The representatives of Austria, Bolivia (Plurinational State of), China, Colombia, Greece, Iran (Islamic Republic of), Japan, Mexico, Romania, South Africa, Switzerland, the Syrian Arab Republic, the United States and Venezuela (Bolivarian Republic of) made statements under the item.

306. The observers for the Asia-Pacific Space Cooperation Organization and IAASS also made statements under the item.

307. The Committee noted with appreciation that the Government of Italy had organized a round table on the theme "Astrophysics and cosmology 400 years after Galileo" during the session of the Committee.

1. Composition of the bureaux of the Committee and its subsidiary bodies for the period 2010-2011

308. In accordance with the agreement of the Committee at its forty-sixth session, endorsed by the General Assembly in its resolution 58/89, and pursuant to the measures relating to the working methods of the Committee and its subsidiary bodies as endorsed by the Assembly in its resolution 52/56, the Committee considered the composition of the bureaux of the Committee and its subsidiary bodies for the period 2010-2011.

309. The Committee agreed that Dimitru-Dorin Prunariu (Romania), Nomfuneko Majaja (South Africa) and Raimundo González Aninat (Chile) should be elected to the offices of Chairman, First Vice-Chairperson and Second Vice-Chairman/Rapporteur of the Committee on the Peaceful Uses of Outer Space respectively, that Ulrich Huth (Germany) should be elected to the office of Chairman of the Scientific and Technical Subcommittee and that Ahmad Talebzadeh (Islamic Republic of Iran) should be elected to the office of Chairman of the Legal Subcommittee.

2. Future role and activities of the Committee

310. The Committee agreed to continue to consider the topic "Future role and activities of the Committee" at its fifty-third session.

3. Observer status

311. The Committee decided to recommend to the General Assembly, at its sixty-fourth session, the granting of permanent observer status to the Asia-Pacific Space Cooperation Organization. The related correspondence and convention of that intergovernmental organization were before the Committee in conference room paper A/AC.105/2009/CRP.9.

312. The Committee took note of the application of the International Association for the Advancement of Space Safety, a non-governmental organization, for permanent observer status with the Committee. The related correspondence and the statutes of that organization were before the Committee in conference room paper A/AC.105/2009/CRP.8. The Committee agreed to postpone its decision on the granting of permanent observer status to IAASS until the next session of the Committee, taking into account the need for further information.

313. The Committee recalled that at its fifty-first session, in 2008, it had agreed that non-governmental organizations that had been granted permanent observer status with the Committee should inform the Committee of any progress made in obtaining consultative status with the Economic and Social Council.[6]

314. The Committee had before it conference room paper A/AC.105/2009/CRP.11, containing information concerning non-governmental organizations having permanent observer status with the Committee regarding their consultative status with the Economic and Social Council.

315. Some delegations expressed the view that the granting of permanent observer status with the Committee to non-governmental organizations should be undertaken in an orderly and regulated manner, in compliance with the guidelines established by the Committee at its thirty-third session, in 1990, and that a review should also be carried out of the way in which those organizations had contributed to the work of the Committee following their admission.

316. Some delegations were of the view that the Committee should not require non-governmental organizations to have consultative status with the Economic and Social Council. Those delegations were of the view that that criterion was inadequate and restrictive.

317. Some delegations were of the view that the Committee, as part of the United Nations system, should observe the procedure relating to the obtaining of consultative status with the Economic and Social Council, in accordance with Council resolution 1996/31.

318. Some delegations were of the view that the following criteria were necessary for the consideration by the Committee of applications by non-governmental organizations for permanent observer status with the Committee: a letter from

[6] *Official Records of the General Assembly, Sixty-third Session, Supplement No. 20* (A/63/20), para. 313.

authorities of the State in which the non-governmental organization is registered, confirming that it has an international character; established offices and clear contact information; responsibility; adequate financial resources; and clear evidence that the applicant would be concerned with matters falling within the competence of the Committee.

319. Some delegations were of the view that it was important to seek guidance from the Economic and Social Council on the criteria for granting permanent observer status with the Committee to non-governmental organizations.

320. Some delegations were of the view that it was necessary to establish an ad hoc working group, consisting of member States, to develop new rules and procedures on the granting by the Committee of permanent observer status to non-governmental organizations.

321. The Committee agreed to review, at its fifty-third session, in 2010, its rules and procedures on the granting of permanent observer status to non-governmental organizations.

322. The Committee agreed that it was important to continue to involve civil society in its work and recognized the value of the contribution made by its permanent observers.

4. Commemoration of the fiftieth anniversary of the first session of the Committee and the fiftieth anniversary of human space flight

323. The Committee noted that the fiftieth anniversary of the first session of the Committee, as well as the fiftieth anniversary of the first human space flights, would take place in 2011 and agreed that those historic milestones should be commemorated during its fifty-fourth session.

324. The Committee noted with appreciation that a special commemorative stamp series would be issued by the United Nations Postal Administration in 2011.

325. The Committee agreed that the Office for Outer Space Affairs should assist member States in the coordination of commemorative activities that member States may wish to organize during the sessions of the Committee and its subcommittees in 2011.

5. Organizational matters

326. The Committee requested the Group of 15 to consider how to rationalize and optimize the use of the time of the Committee and its subsidiary bodies, taking into account the need to balance the value brought by the technical presentations and the need to have adequate time for substantive consideration of the issues before the Committee and its subsidiary bodies.

L. Schedule of work of the Committee and its subsidiary bodies

327. The Committee agreed on the following tentative timetable for its session and those of its subcommittees in 2010:

	Date	Location
Scientific and Technical Subcommittee	8-19 February 2010	Vienna
Legal Subcommittee	22 March-1 April 2010	Vienna
Committee on the Peaceful Uses of Outer Space	9-18 June 2010	Vienna